

SAMPLE APPLICATION TO CLONE (SATC) ARCHITECTURE PLAN

FOR: AGENCY ARCHITECTURE REVIEW

CREATED BY:

SAT REVIEWED & APPROVED DATE:

MAY 2, 2009

VERSION 1.0

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A. Application Description

The Northwest Area Planning Exercise Schedule (NAPES) is a web application designed to help the Northwest Area Contingency Planning community (state, federal and industry) track oil spill and hazardous material exercises occurring throughout the state. NAPES ensure exercises are scheduled in a timely matter and within regulatory guidelines. It also serves to ensure there are no conflicts with exercises being scheduled at the same time.

Tasks:

Develop a system that fulfills the following functions:

- **Drill Request** - Replace the current public drill request form to allow the facilities and vessels contingency plan holders to submit a request to schedule a drill/exercise. Upon receiving the drill request, the Spills Drill Coordinator will process and approve the drill request.
- **Multi-Company Drill Event/Other Event** - Allow Drill Coordinator to create and maintain a Planning Exercise calendar schedule for a normal events or a drill event that may occur from state or federal agencies.
- **Schedule Calendar** - Display yearly/monthly normal events and drill events on the calendar.

Features & Benefits

NAPES will be a web-based database available to all Spills staff internally and the public to review the Northwest Area Planning Exercise Schedule and Drill Requests. It will provide live up-to-date information on the drill and event through calendar. There's also an auto-notification to the Drill Coordinators and Plan Reviewers when there's incoming Drill Request. Once the drill request is approved, an approval email will be sent out to the Plan holder.

NAPES has 3 input/data display screens: Calendar schedule to show the normal events and drill events, Drill Request, and Event.

Use

Facility and vessel contingency plan holders are able to submit drill requests and browse the calendar for drills or events.

Drill Coordinator and Plan Reviewer staffs have update access to approve and process the Drill Request submitted by plan holders. Also, they are able to create and maintain the planning exercise events.

Data Input

Drill request form for submitting drills.

Event form for creating events.

Linked MIS

NAPES will be resides with MIS and access MIS lookup dictionary

Number of intranet (Ecology) users: Estimated 6 Update-Right users. Read Access is open for everyone.

Number of internet (public) users: Facility and vessel contingency plan holders, other state and federal partners.

Why are we doing this project (the business need)?

- To automate the current process which requires the Drill Coordinator to manually process the incoming drill request, and send out the approval status notification to the plan holder of the request.
- To automate the compilation of the drill requests that are tracked in spreadsheet and published to Spills Program page manually by the drill coordinator.
- To prevent SPAM by incorporating the “Captcha” verification code in drill request form.
- To provide an up-to-date information about the drills and events.

What other products did you consider as alternatives?

We considered using SharePoint but determined that SharePoint is not suitable for data collection and processing.

B. Tools, Technologies and Architecture Approach

Development Tools: Visual Studio 2008, SQL2008 Studio Management

Technologies:

- .NET 3.5
- SQL Server 2008
- Report Services 2008 (as need for future report)

Architecture Approach:

- Built upon the 3 tier structures generated by Ecology Application Template for VS2008
- Leverage Dynamic Data framework provided by the template for admin function.
- Using Ajax Calendar control.

Security Strategy:

- Intranet using ADAM/Azman Roles Based Provider for user authentication and authorization.

Source Codes Management:

- Visual Source Safe

Backup Strategy:

- The agency enterprise servers host this application and database, which are backed up by the network group

Data migration strategy:

- Data from SQL2005 database will be imported to SQL2008 via SQL2008 Visual Studio

Replication Strategy:

- There is no need to replicate this database.

Bandwidth requirement:

- Does this application allow user to upload pictures/files/objects larger than 5 megabytes?
No this application doesn't allow user to upload data.
- What is the maximum size of the data travel between users computer and server per transaction?
The maximum size of the data travel between client and server is less than 1 meg.

Method of collecting and distributing data and frequency:

- Data is collected and distributed via Web Front-end. This is a daily activity for around 10 users. Each user probably uses the application less than 1 hour a day

Have you registered this application in the Application Inventory System (AIS):

- AIS registration to be completed before the application is in the production.

C. Software and Hardware Requirements and Dependencies

Application is using existing standard desktop and server infrastructure.

Does application write data such as log file to the non-database server?

All data processed by this application is derived from database server. The log file is also stored in the database.

Does this application store or accessing photo images?

No.

Does this application access GIS information?

No.

If software is needed to purchase for this application, please describe the licensing and usage?

No.

Other Helpful information about the software:

N/A

D. Data Integration Questionnaire

Geographic Location

Does the planned application /activity capture geographic location information such as Latitude and Longitude? If so, how will this information be obtained? What location metadata (regarding coordinate reference systems, methods of measurement, and accuracy of measure) will be included?

N/A

Will other location information such as City, County, Watershed, WRIA, Township-Range-Section, River Name, Hydrologic Catalog Unit, Puget Sound Action Area, etc. be collected by this application? If so, which ones? Will there be validation between the location coordinates entered, and the reported City, County, WRIA, etc.

N/A

Regulated Facility & Sites

Does the planned application /activity capture information about, or related to, regulated Facilities and Sites as defined by Ecology's Facility/Site database application? If so, how will integration with Facility/Site be achieved?

N/A

Pollutant, Release & Environmental Measures

Does the planned application /activity capture information about chemicals, contaminants, pollutants, releases, discharges, or other data regarding chemical substances? If so, what naming and unique identification standards will be employed when referencing these substances?

N/A

Agency Common Data (employees; regulated persons & businesses, Ecology offices...)

Does the planned application / activity capture or associate activities with Ecology staff? If so how will integration with the Ecology's Employee Plus Information System be achieved?

N/A

Will information about Person's/Business'/Organization's name, address, and contact information be captured? Yes

E. Operation and Support questionnaire

- Is installation instruction available? Describe the minimum skills required to perform the installation.

Standard .NET 3.5 and SQL 2008 database deployment.

- Will this software require users to have read / write access to the server?

No. End users require only a web browser. Read/Write access is handled through *database security*.

- Describe cross-training plan to address employee turnover.

This application should be intuitive since it is a simple web application that utilizes the agency standard application template.

- Identify or suggest the technical support unit/personnel for this product when it is in the production? Who would be the point of contact for users for day-to-day operation?

Ecology Application Architect is the point of contact. This role is currently assigned to Kevin Truong.

- Who will manage security and access rights for users?

NAPES System Owner will manage the security.

- Is there any concern the that incompatibility issues may occur when the agency upgrades the Microsoft operating system, service packs or the Microsoft Office applications? Do you have any or suggestions on how to deal with such problems?

There are no anticipated special incompatibility issues.

- Do other Programs have a need for the functionality provided by this product?

At this point, the needs from other Programs are unknown.

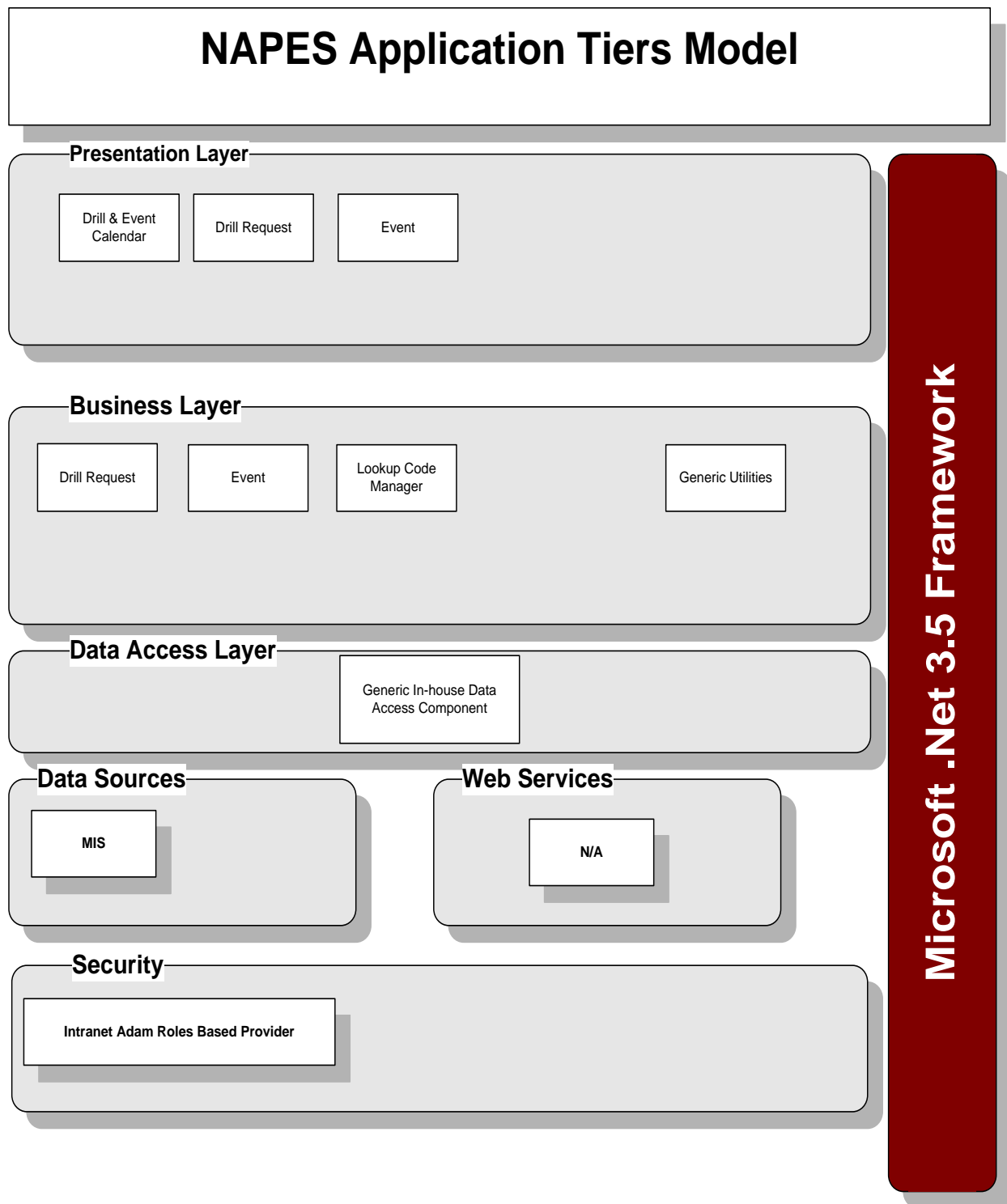
- Are there other products currently in use in Ecology that have a similar function?

No.

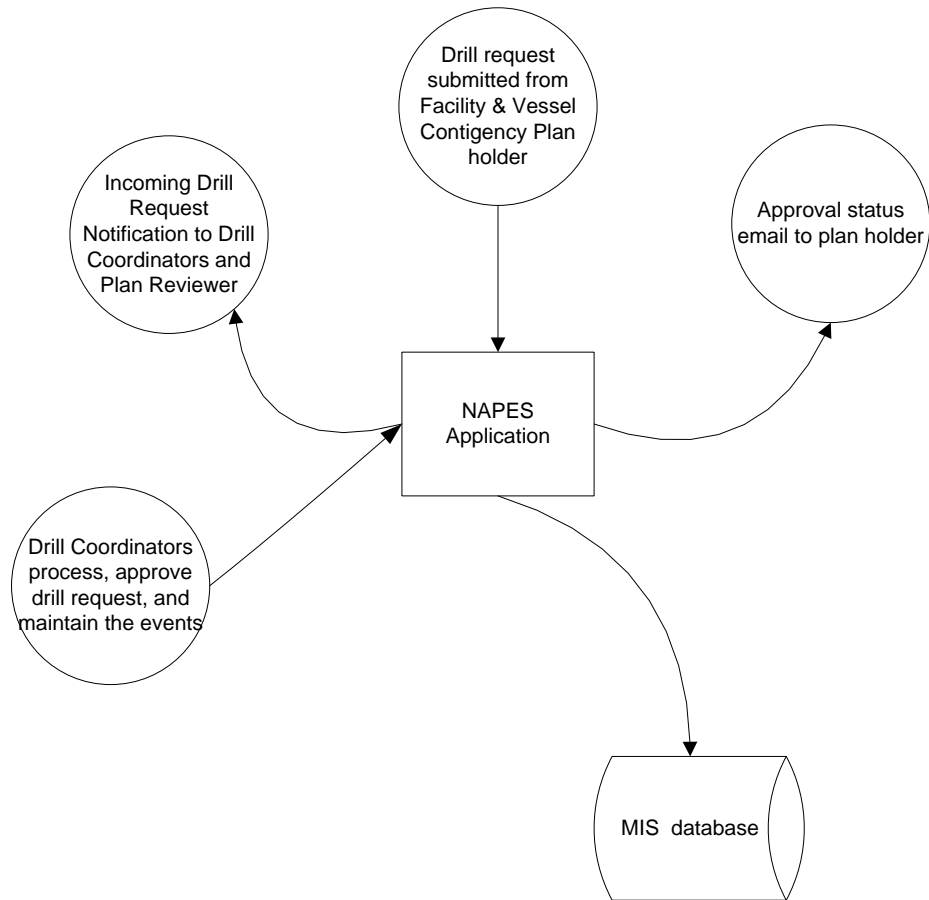
- Once the installation is complete, what level of permissions does the “administrator” of need? Do they need to be part of the server administrator group?

The “administrator” doesn’t need any extra right.

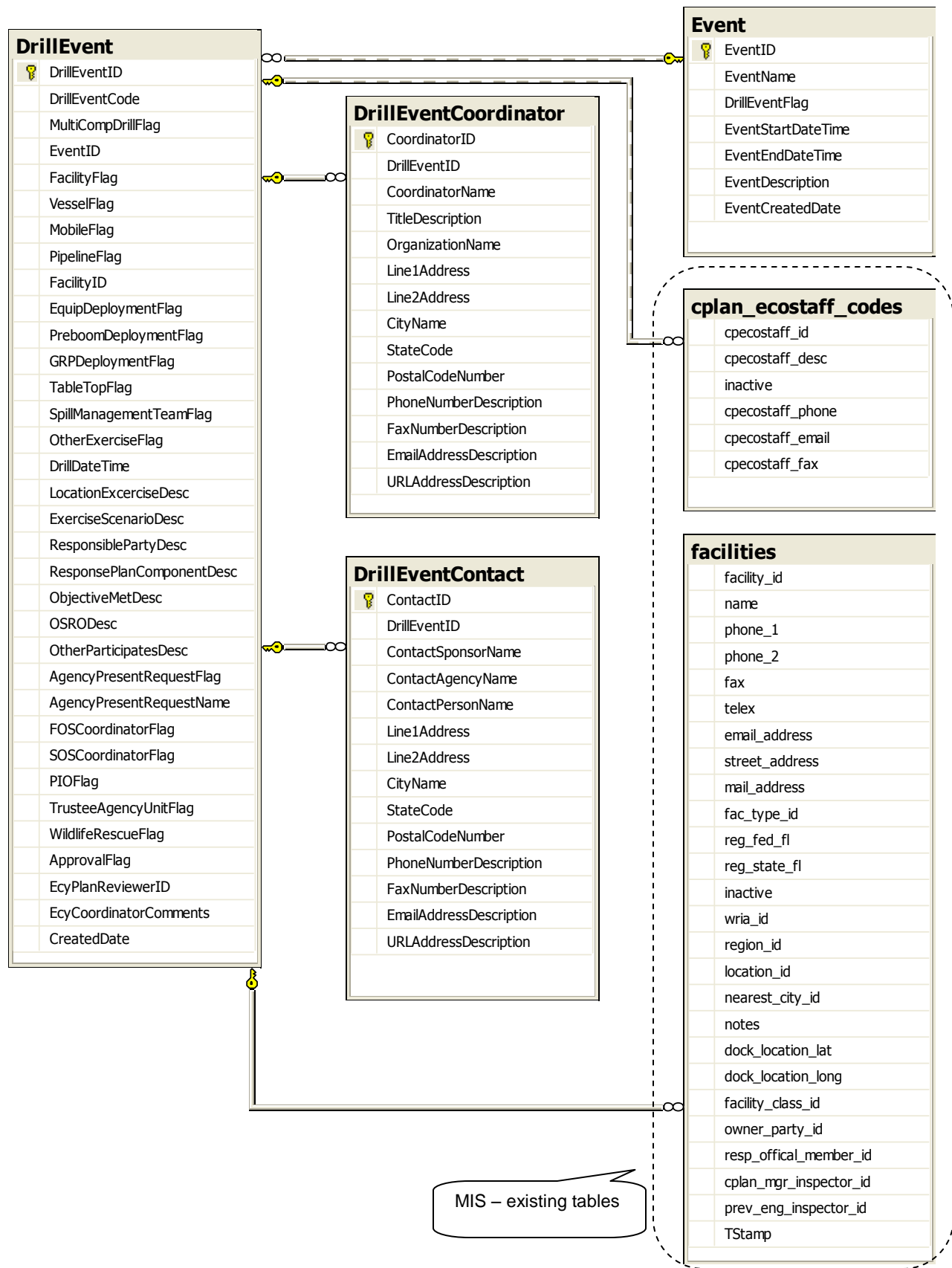
F. Application Tiers Model



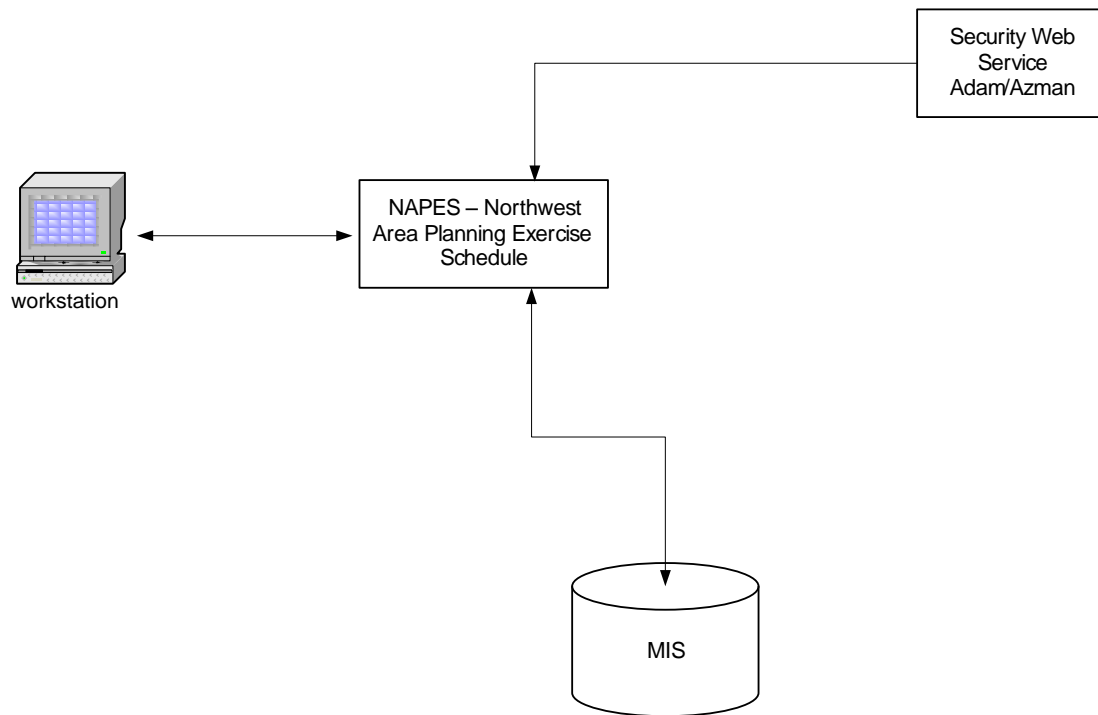
G. Dataflow Diagram (if applicable)



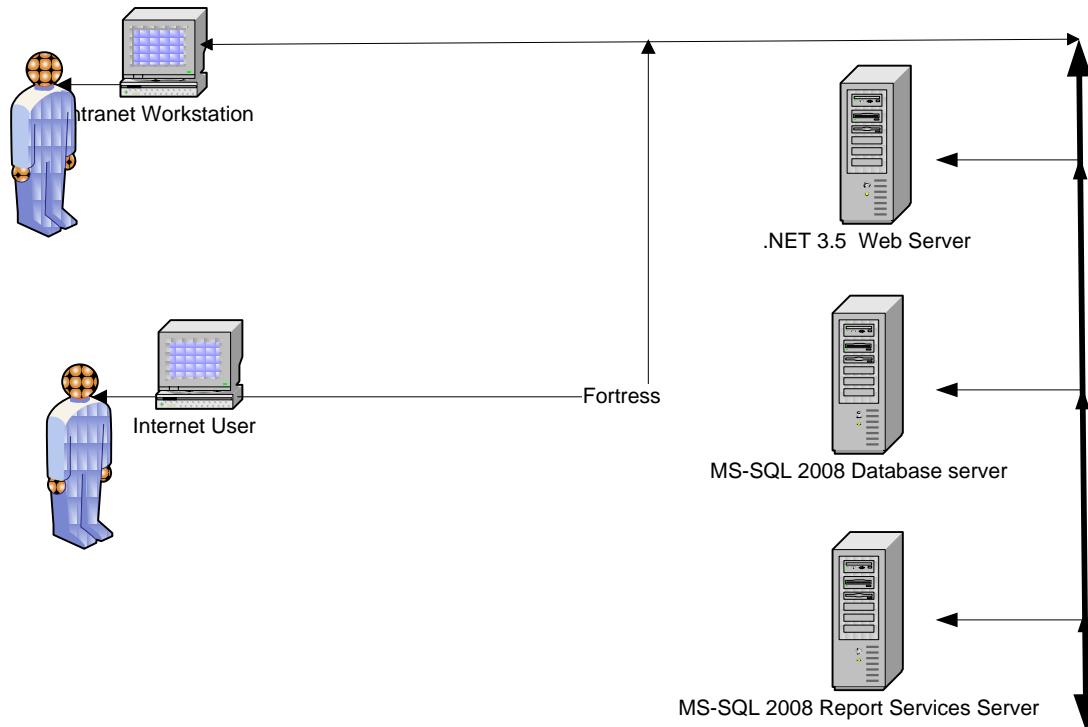
H. E/R Diagram



I. Software Context Diagram



J. Software Environment (Servers) Diagram



K. Security Risk Measurement Required by ISB

SAT Risk determination matrix

	Low risk – 1	Medium risk - 2	High risk - 3
Scope of application		x	
Data sensitivity	x		
Application functionality	x		

Total Score: 4

6+ is significant and would require the ISB IT security checklist (contact: Jim French JIFR461@ecy.wa.gov)

7+ would require an internal agency IT Security program audit every three years

Guidelines to fill out the above matrix:

Scope of application

- Low risk: Application is intranet and used by Program staff only
- Medium Risk:
 - Application is intranet and can be updated by all Ecology staff.
 - Application is internet and can be updated by limited number of users (less than 1000) via SAW.
- High Risk:
 - Application is internet and can be updated by more than 1000 users whether utilizing SAW or anonymous with Captcha control.

Data Sensitivity

- Low risk: information that can be or currently is released to the public. It does not need protection from unauthorized disclosure.
- Medium Risk: **Data share as critical information for other applications. The operation of other applications will be severely impacted if these data are not available.**
- High Risk:
 - Confidential or sensitive business data
 - Required CROMERR
 - Required data encryption

Application functionality

- Low risk: less than 100 transactions per screen
- Medium Risk: Allow users to produce reports or charts that require application to process large amount of data, or users can download data
- High Risk:
 - User can upload data file into application.
 - Required CROMERR
 - Required data encryption

Application Architecture Review Check List

- ☐ Application Deployment Form (ADS Operation)
- ☐ Components/Environment Diagram (Application Architect / GIS Architect*)
- ☐ System Context Diagram (Application Architect / GIS Architect*)
- ☐ Application Tiers Model (Application Architect / GIS Architect*)
- ☐ Class Diagram (optional) (Application Architect)
- ☐ Entity Relationship Diagram (Data Architect / GIS Architect*)

Resources to get help for the above documents:

GIS Architect: If your application is going to use any GIS component,
Please contact Dan Saul for assistant.

ADS Operation: Randy Moore, Mike Heiser, Tod Randle

Application Architect: Son (Sim) Tran

Data Architect: Miles Neale, Bill Kellum

Data Integration Architect: John Tooley

Network Security: Jim French

UI design: Tammy Pelletier

Review History

Date	Version	Review Session	Attendees/Invitees

Review Notes from SAT Meeting: